AMENDMENT TO THE CLAIMS

1. (Currently Amended)   A system for providing a computer-based dialog interface to a user, the system comprising:

    a dialog state engine that receives input from the user and that uses at least one stochastic model to generate at least one probability of a current dialog state given the user's input and a previous dialog state wherein the dialog state engine comprises:

        a recognition engine that uses a stochastic model to determine a probability of at least one surface semantic given the user input; and

        a discourse engine that uses a stochastic model to determine a probability of at least one current dialog state given the surface semantic from the recognition engine and a previous dialog state; and

    a rendering engine that uses a stochastic model to identify a probability of at least one action given a current dialog state.

2. (Canceled)

3. (Currently Amended)   The system of claim 12 wherein the current dialog state is represented by a discourse semantic structure.

4. (Previously Presented)   The system of claim 3 wherein the discourse engine expands a discourse semantic structure based on the surface semantic before using a stochastic model to determine a probability for the discourse semantic structure.

5. (Original)   The system of claim 4 wherein the dialog state engine further comprises a memory that is accessed by the discourse engine to resolve implicit references found in the user input.

6. (Original)   The system of claim 5 wherein the memory comprises:

a long-term memory containing values determined from previous user input;

an explicit memory containing values taken from explicit references made in a current user input; and

an implicit memory containing values that have been resolved from implicit references made in a current user input.

7. (Original)   The system of claim 4 wherein the discourse semantic structure comprises semantic tokens that provide a general representation of specific entities and wherein the dialog state engine further comprises a database containing the specific entities that are represented by the semantic tokens.

8. (Previously Presented)   The system of claim 1 wherein the rendering engine also receives an indication of the output interfaces that are available and wherein the rendering engine uses the stochastic model to identify a best action to take given the current dialog state, the probability of the current dialog state and the available output interface.

9. (Original)   The system of claim 1 wherein the dialog state engine describes the current dialog state to the rendering engine by using a markup language.

10. (Original)   A method of providing a dialog interface, the method comprising:

receiving input generated by a user;

determining a current dialog state based on the received input and a past dialog state;

formatting the current dialog state into a markup language page;

converting the markup language page into an output markup language page based on the current dialog state and an available output user interface; and

passing the output markup language page to the available output user interface.

11. (Original) The method of claim 10 wherein formatting the current dialog state comprises formatting the current dialog state in an extensible markup language.

12. (Original) The method of claim 11 wherein formatting the current dialog state comprises formatting a discourse semantic structure into a markup language page.

13. (Original) The method of claim 12 wherein determining a current dialog state comprises:

identifying a surface semantic in the input;

formatting the surface semantic into a surface semantic markup language page; and

identifying a discourse semantic structure from the surface semantic markup language page.

14. (Previously Presented) A system for providing a computer-based dialog interface to a user, the system comprising:

a dialog state engine that receives input from the user and that generates a markup language page representing a current dialog state wherein the dialog state engine comprises:

a recognition engine that receives user input and generates a markup language page representing surface semantics of the user input; and

a discourse engine that converts the markup language page representing the surface semantics into the markup language page representing the dialog state; and

a rendering engine that converts the markup language page representing the current dialog state into a markup language page representing an action.

15. (Canceled)